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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/859,353	05/20/97	ALMEIDA	A 034367-1

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EXAMINER

LEE, K

ART UNIT	PAPER NUMBER
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3753

DATE MAILED:

01/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
**08/859,353**

Applicant(s)  
**De Almeida**

Examiner  
**Kevin Lee**

Group Art Unit  
**3753**



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 4 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 4 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 3753

## **DETAILED ACTION**

### ***Interference***

1. Applicant's request under 37 CFR 1.607 filed September 17, 1999 and December 15, 1999 has been thoroughly reviewed and considered by the examiner. The request has been denied at this time due to the claim 4 of the instant application not being allowable as previously indicated. The indicated allowability of claim 4 is withdrawn in view of the newly discovered reference(s) to Jaikaran, Corteville et al and Short. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The preamble of the claim indicates that the apparatus is intended to be used in an oil well having a casing with tubing but the body of the claim recites a positive combination of the apparatus and the tubing of the casing. Therefore, the recitation of "said tubing" in line 3 of the claim lacks positive antecedent basis.

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***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaikaran. The patent to Jaikaran discloses an apparatus comprising a nozzle (96) mounted in a housing (130). The nozzle is a continuously open passage consisting of a curved inlet portion, a smooth straight, intermediate portion and a smooth, outwardly tapered conical shaped outlet portion, see Figures 1 and 10. The apparatus of Jaikaran is recited to control the flow of an oil or other production fluid, col. 1, lines 5-9. It would have been an obvious design expedient to one of ordinary skill in the art to modify the apparatus of Jaikaran to use gas as the production fluid. A flow of gas past the check valve (10) and through the nozzle (96) will by laws of fluid dynamics result in the gas flow being gradually slowed down in the restricted Venturi passage of the nozzle, reducing the gas pressure loss and rendering the flow isoentropic.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corteville et al. The patent to Corteville et al discloses an apparatus comprising a nozzle (11) mounted in a housing. The nozzle is a continuously open passage consisting of a curved inlet portion, a smooth straight, intermediate portion and a smooth, outwardly tapered conical shaped outlet portion, see Figure 2. The apparatus of Corteville et al is used to control the flow of a production fluid (1), see Figure

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1. It would have been an obvious design expedient to one of ordinary skill in the art to use the apparatus of Corteville et al to use gas as the production fluid within the well. A flow of gas past the check valve (17) and through the nozzle (11) will by laws of fluid dynamics result in the gas flow being gradually slowed down in the restricted Venturi passage of the nozzle, reducing the gas pressure loss and rendering the flow isentropic.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Short. The patent to Short discloses an apparatus comprising a nozzle (46) mounted in a housing (36, 54). The nozzle is a continuously open passage consisting of a curved inlet portion, a smooth straight, intermediate portion and a smooth, outwardly tapered conical shaped outlet portion, see Figure 2A. Figure 4 shows another embodiment wherein a nozzle (136) is disclosed therein. The apparatus of Short is used to control the flow of a liquid. It would have been an obvious design expedient to one of ordinary skill in the art to use the apparatus of Short to control the flow of gas from within the well. A flow of gas past the check valves (106, 180) and through the nozzles (46, 136), respectively, will by laws of fluid dynamics result in the gas flow being gradually slowed down in the restricted Venturi passage of the nozzle, reducing the gas pressure loss and rendering the flow isentropic.

Any inquiry concerning this communication should be directed to KEVIN LEE at telephone number (703) 308-1025. The Group 3750 fax number is (703) 308-7766.

JANUARY 25, 2001

  
**Kevin Lee**  
Primary Examiner